clarion

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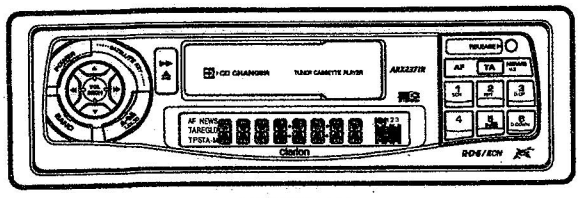
Published by Service Dept.
298-5584-00 Feb.1997 P
Printed in Japan

Service Manual



ARX2371R

RDS-EON/FM-MPX Radio Cassette Combination With CD Changer Control

Model ARX2371R

(PE-1536E-A/Illumination:Amber)
(PE-1536E-B/Illumination:Green)

RDS-EON/FM-MPX Radio Cassette Combination

Model ARX1371R

(PE-1538E-A//Illumination:Amber)
(PE-1538E-B/Illumination:Green)

■SPECIFICATIONS

Radio section

Tuning system:	PLL synthesizer tuner
Receiving frequencies:	
	FM 87.5 to 108MHz

Tape deck section

Cassette type:	Compact audio cassette
Frequency response:	30Hz to 15kHz±3dB
Wow & flutter:	0.15%(WRMS)
S/N ratio:	52dB
Tape type:	Normal

General

Max.power output:	4×30W
Effective power output:	
	4×14W(1% THD)
Power supply voltage:	14V DC(10.8 to 15.6V allowable), negative ground
Power consumption:	Less than 10A
Speaker impedance:	4Ω(4 to 8Ω allowable)
Line output:	1.8V
	(CD changer 1kHz,10kΩ)
Auto antenna rated current:	
	0.5A or less
Weight:	1.3kg
Dimensions:	178(W)×50(H)×152(D)mm

※ Specifications and design are subject to change without notice for further improvement.

■COMPONENTS

PE-1536E-A / PE-1536E-B
PE-1538E-A / PE-1538E-B

Main unit	————	1
Universal mounting bracket	300-9677-00	1
Parts bag	————	
Hook plate	331-0488-00	2
Cord clamp(ARX2371R Only)	335-0833-07	1
Rubber cap	345-3653-01	1
Screw	716-0726-01	1

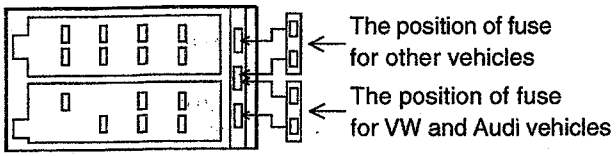
■ To engineers in charge of repair or inspection of our products.

Before repair or inspection,make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
   The system uses parts with special safety features against fire and voltage.Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable.The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction,use of insulation tubes,bonding,gaps to PWB,etc,is involved.The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts.Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair,the legal responsibility shall be with the repairing company.
3. Check for safety after repair.
   Check that the screws,parts and wires are put back securely in their original position after repair.Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair,the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off.If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur.If extensive damage is caused due to negligence of repair,the legal responsibility shall be with the repairing company.
5. Cautions regarding chips.
   Do not reuse removed chips even when no abnormality is observed in their appearance.Always replace them with new ones.(The chip parts include resistors,capacitors,diodes,transistors,etc).The negative pole of tantalum capacitors is highly susceptible to heat,so use special care when replacing them and check the operation afterwards.
6. Cautions in handling flexible PWB
   Before working with a soldering iron,make sure that the iron tip temperature is around 270℃.Take care not to apply the iron tip repeatedly(more than three times)to the same patterns.Also take care not to apply the tip with force.
7. Turn the unit OFF during disassembly and parts replacement.Recheck all work before you apply power to the unit.

■NOTES

※ For VW and Audi vehicles,change the position of fuse installation as shown on the diagram.
For settings,refer to the "Installation/Wire Connection Guide".



ISO connector

■TROUBLESHOOTING

Problem	Cause	Measure
Power does not turn on. (No sound is produced.)	Fuse is blown.	Replace with a fuse of the same amperage.
	Connections are improper.	Read the "Installation/Wire Connection Guide" and wire properly.
Sound quality is poor.	Playback head is dirty.	Use a cleaning tape,etc.,to clean the head.
No sound while unit can be operated.	Power ANT lead is shorted to the ground.	Turn the unit off,first. Remove all connecting wires from the power ANT lead,and turn the unit on,then re-connect a wire one by one to the power ANT lead. When sound is muted again,check the unit with a wire connected last.

■ERROR DISPLAYS

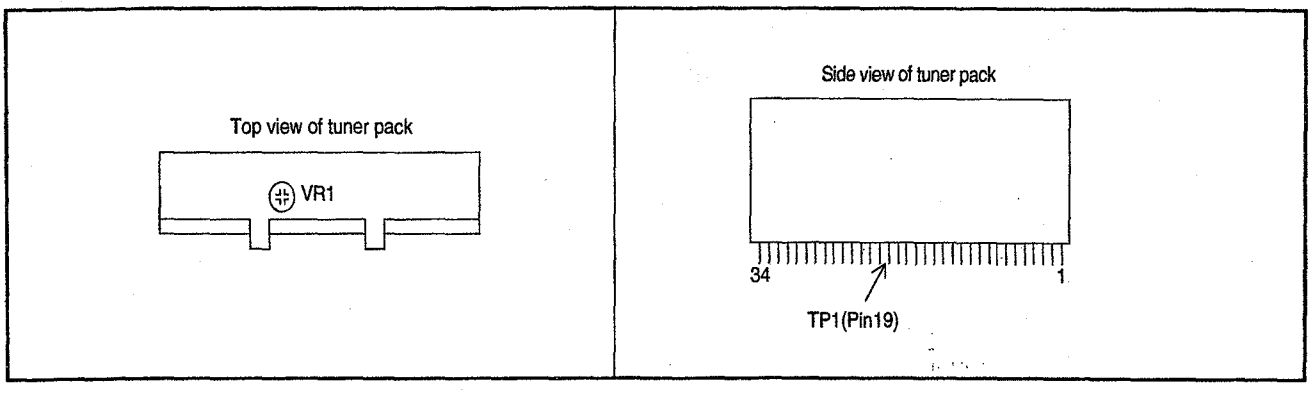
This unit is equipped with a number of self-diagnosis functions to protect the system.
If a problem should occur,the user is warned through various error displays.
Eliminate the problem using the procedures shown below.

Error Display	Procedure
Er 2	This indicates that a problem has occurred with the CD changer's mechanism(disc cannot be changed or ejected,etc.). →The CD changer mechanism is likely damaged.
Er 3	This indicates that the pickup is out of forcus during playback due to scratches on the disc,etc.
Er 6	This indicates that the CD's TOC(table of contents) cannot be read,for example because the selected disc is upside-down.

■ADJUSTMENTS

Item	Procedure	Measuring instrument
S-meter	1. Connect the AC volt-meter to TP1. 2. Input the 98.1MHz/30dB μ(NO MOD)signal. 3. Adjust the level to 3.0±0.05V by VR1.	SSG AC voltmeter

Adjustment point



■EXPLANATION OF IC

■μPD17708GC-543-3B9 052-1910-00 System Controller

Outward Form

80 pins, plastic QFP

Terminal Description

No.	Symbol	I/O	Function
1	B/U DET	I	B/U detection terminal
2	KEY INT	I	DCP SW detection terminal
3	N.C.	–	Not in use
4 5	INIT 1 INIT 2	I	Terminal for initial setting
6	SOFT MUTE	O	SOFT MUTE signal output
7	N.C.	O	Not in use
8	RDS DX/$\overline{LO}$	O	LOCAL=LOW in RDS SEEK
9	SYS MUTE	O	MUTE output, MUTE ON=HI
10	PHONE INT	I	PHONE INT
11	$\overline{TAPE\ IN}$	I	"LOW" in TAPE IN
12	$\overline{FWD}$/REV	I	In TAPE, FWD=LOW, REV=HI
13	$\overline{FF/REW}$	I	In TAPE FF/REW, "LOW"
14	MECH MOTOR	O	MECH MOTOR CONTROL terminal
15	FM DX/LO	O	DX/LOCAL CONTROL terminal, LOCAL=HI
16	RDS MUTE	O	MUTE output terminal for RDS
17	REM +B	O	AUDIO system power supply CONTROL terminal
18	$\overline{REM+5}$	O	PULL-UP, LCD DRINER power supply CONTROL terminal
19	$\overline{FM\ CONT}$	O	FM power supply CONTROL terminal
20	$\overline{AM\ CONT}$	O	AM power supply CONTROL terminal
21	GND	–	GND
22	KEY AD	I	FUNC/DCP SW detection terminal
23	RDS S-METER	I	RDS S-METER
24	RDS NOISE 1	I	RDS NOISE detection terminal
25	RDS NOISE 2	I	N.C. GND
26	FM SD	I	FM SD input terminal
27	AM SD	I	AM SD input terminal
28	AM IF CNT	I	AM IF CNT
29	FM IF CNT	I	FM IF CNT
30	VDD	–	VDD
31	FM OSC	I	FM OSC
32	AM OSC	I	AM OSC
33	GND	–	GND
34	FM E 0	O	FM error out
35	AM E 0	O	AM error out
36	TEST	I	Not in use
37	L/$\overline{M}$	O	HI output in LW
38	$\overline{ST\ IND}$	I	FM STEREO ST IND ON
39	RDS DISCHG	O	RDS NOISE CLEAR
40	BEEP	O	BEEP out
41	N.C.	I	Not in use
42	RDS CLK	I	RDS CLK
43	IF REQ	O	HI output in SEEK
44	AM DX/LO	O	AM DX/LO CONTROL terminal, LOCAL=HI
45	RDS +B	O	RDS power supply CONTROL terminal
46	RDS DATA	I	RDS DATA

No.	Symbol	I/O	Function
47 \ 58	N.C.	I	Not in use
59 \ 61	N.C.	O	Not in use
62	LCD CE	O	LCD chip enable
63 64	VOL DO VOL CLK	O	Data communication line to electronic volume IC
65 66 67	VCD CLK VCD DO VCD DI	O O I	Data communication line to LCD drive IC
68 \ 73	N.C.	I	Not in use
74	VREG	–	0.1uF TO GND
75	GND	–	GND
76 77	XOUT XIN	O I	Connected to oscillating quarts
78	ACC IN	I	ACC detection
79 80	VDD RESET	– I	VDD

■μPD178004GC-513-3B9 052-1908-00 System Controller

Outward Form

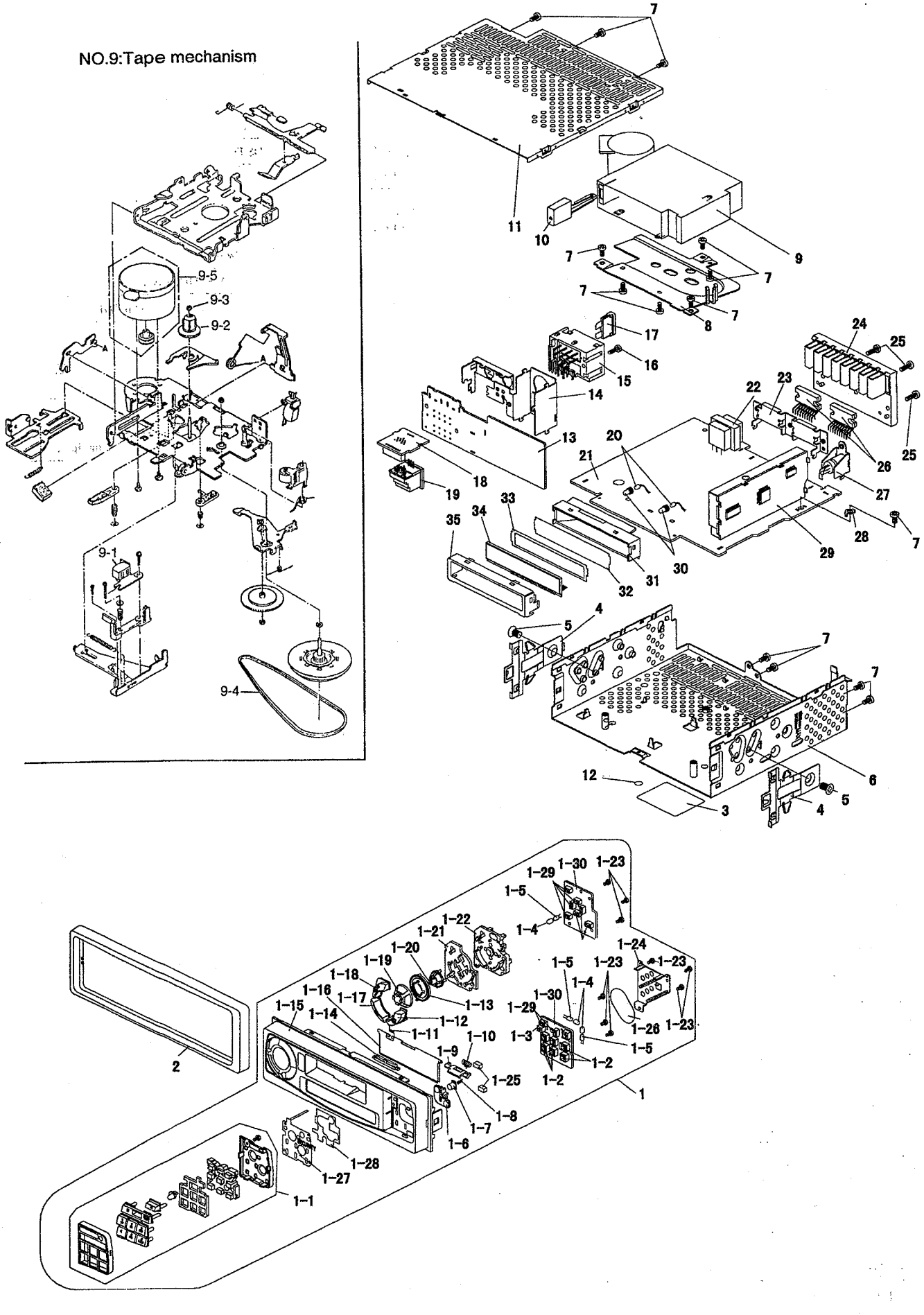
80 pins, plastic QFP

Terminal Description

No.	Symbol	I/O	Function
1	KEY AD	I	FUNC/EJECT/DCP SW detection terminal
2	RDS S METER	I	RDS S-METER detection terminal
3	RDS NOISE 1	I	RDS S-METER detection terminal
4	RDS NOISE 2	I	Not in use
5 6	N.C.	O	Not in use
7 8 9 10	LCD SI LCD SO LCD SCK LCD CE	I O O O	Serial data communication line with LCD drive IC
11	N.C.	I	Not in use
12 13 14	C-BUS SO C-BUS SI C-BUS SLK	O I O	C-BUS data communication line
15	FM DX/$\overline{LO}$	O	FM DX/LO CONTROL terminal, LOCAL="LOW"
16	PLL CLK	O	PLL clock output
17	PLL DO	O	PLL data output
18	FM SD	I	FM SD input
19	$\overline{ST\ IND}$	I	"LOW" in FM STEREO
20	EO SEL	I	Not in use
21	GND	–	GND
22	VDD	–	VDD
23	AM SD	I	AM SD input terminal
24 25 26	N.C.	I	Not in use
27	PLL DI	I	PLL data
28 29	FM IF CNT AM IF CNT	I	Not in use
30	VDD	–	VDD
31 32	FM OSC AM OSC	I	Not in use
33	GND	–	GND
34 35	FM EO AM EO	O	Not in use
36	VDD	–	VDD
37	PLL CE	O	PLL CE
38	IF REQ	O	"HI" output in SEEK
39	AM $\overline{DX}$/LO	O	DX/LOCAL CONTROL terminal, "HI" in LOCAL
40	N.C.	O	Not in use
41	RDS MUTE	O	MUTE output terminal for RDS
42 43	VOL CLK VOL DO	I O	Data communication line to electronic volume IC
44	$\overline{RDS}$ +B	O	RDS +B
45	NOISE DISCHG	O	Noise discharge
46	RDS DX/$\overline{LO}$	I	LOCAL="LO" in RDS SEEK
47	REM +5	I	PULL UP, LCD DRIVER power supply CONTROL terminal
48	REM +B	I	AUDIO system CONTROL power supply terminal
49 \ 58	N.C.	I	Not in use
59	PHONT INT	O	"HI" while TEL is used
60	$\overline{SRQ}$	O	ACTIVE="LOW"
61	ACC CONT	O	ACC ON "HI", ACC OFF "LOW"
62	$\overline{FWD}$/REV	O	TAPE input terminal FWD = "LOW", REV = "HI"
63	$\overline{FF/REW}$	O	TAPE input terminal FF, "LOW" in REW
64	MECH MOTOR	O	MECH MOTOR CONTROL terminal
65	$\overline{TAPE\ IN}$	O	TAPE END detection terminal
66	RDS DATA	O	RDS DATA input terminal
67	RDS CLK	I	RDS CLOCK input terminal
68	B/U DET	I	B/U detection terminal
69	ACC IN	I	ACC detection terminal
70	KEY INT	I	DCP SW detection terminal
71	INITIAL	I	FM ONLY = "HI", 3 BAND = "LO"
72	SYS MUTE	I	MUTE output, MUTE ON in "HI"
73	GND	I	GND
74	CPUREG	–	Connected to capacitor for reducing ripple
75	GND	–	GND
76 77	XOUT XIN	O I	Connected to oscillating quarts
78	OSC REG	I	Connected to capacitor for reducing ripple
79	VDD	–	VDD
80	RESET	I	Not in use

■EXPLODED VIEW · PARTS LIST

NO.9:Tape mechanism



NO.	PART NO.	DESCRIPTION	Q'TY
1	940-1825A	ESCUTCHEON ASS'Y (ARX2371R:AMBER)	1
	940-1826A	(ARX2371R:GREEN)	1
	940-1829A	(ARX1371R:AMBER)	1
	940-1830A	(ARX1371R:GREEN)	1
1-1	940-1793A	DCP ASS'Y(ARX2371R)	1
	940-1792A	DCP ASS'Y(ARX1371R)	1
1-2	013-6002-50	TACT SWITCH	7
1-3	013-7000-01	TACT SWITCH	1
1-4	345-4441-58	LAMP CAP(AMBER)	3
	345-2830-20	LAMP CAP(GREEN)	3
1-5	017-0410-00	PILOT LAMP	3
1-6	335-5358-00	ILLUMI PLATE	1
1-7	382-4472-00	BUTTON(PUSH-OUT)	1
1-8	750-3221-00	SPRING	1
1-9	335-5313-00	HOOK	1
1-10	750-3220-00	SPRING	1
1-11	750-3256-00	SPRING	1
1-12	382-4397-20	BUTTON(A・M)	1
1-13	335-5297-00	JOG PLATE	1
1-14	335-5290-00	ILLUMI PLATE	1
1-15	370-5648-00	ESCUTCHEON(ARX2371R)	1
	370-5648-01	ESCUTCHEON(ARX1371R)	1
1-16	320-0535-00	DUSTPROOF COVER (ARX2371R)	1
	320-0535-01	DUSTPROOF COVER (ARX1371R)	1
1-17	382-4395-20	BUTTON(BAND)	1
1-18	382-4393-20	BUTTON(POWER/FUNC) (ARX2371R)	1
	382-4393-21	BUTTON(POWER) (ARX1371R)	1
1-19	380-5394-20	JOG BUTTON	1
1-20	335-5298-00	JOG ARM	1
1-21	345-7818-00	SPONGE	1
1-22	335-5307-00	ILLUMI PLATE	1
1-23	716-0778-00	WAVE SCREW	9
1-24	331-2003-00	HOOK BRACKET	1
1-25	345-7898-00	SPACER	2
1-26	347-5438-00	SHADE	1
1-27	331-2136-00	EARTH PLATE	1
1-28	347-5437-00	DOUBLE FACE	1
1-29	013-3812-11	TACT SWITCH	9
1-30	039-0850-00	SWITCH PWB	1
2	370-5656-01	OUTER ESCUTCHEON	1

NO.	PART NO.	DESCRIPTION	Q'TY
3	286-8680-00	SETPLATE(ARX2371R)	1
	286-8682-00	SETPLATE(ARX1371R)	1
4	750-3137-00	SPRING	2
5	714-5008-41	MACHINE SCREW	2
6	311-1697-03	LOWER CASE	1
7	714-3005-80	MACHINE SCREW	14
8	331-2004-00	MECH.BRACKET	1
9	930-1005-00	TAPE MECHANISM	1
9-1	658-0218-01	HEAD	1
9-2	658-0218-02	REEL GEAR ASS'Y	1
9-3	658-0218-03	WASHER	1
9-4	658-0218-04	BELT	1
9-5	658-0218-05	MOTOR ASS'Y	1
10	382-4466-00	BUTTON(EJECT)	1
11	310-1571-00	UPPER CASE	1
12	290-6495-01	LABEL(AMBER)	1
	290-6495-00	LABEL(GREEN)	1
13	039-0841-00	CONNECTOR PWB	1
14	331-1856-20	CONNECTOR HOLDER	1
15	074-1115-11	ISO CONNECTOR	1
16	714-2610-10	MECHINE SCREW	1
17	060-0057-56	AUTO FUSE(10A)	1
18	039-0428-00	C-BUS PWB(ARX2371R ONLY)	1
19	074-1022-01	OUTLET SOCKET (ARX2371R ONLY)	1
20	017-9001-01	PILOT LAMP	2
21	039-0838-01	MAIN PWB(ARX2371R)	1
	039-0840-01	MAIN PWB(ARX1371R)	1
22	009-9006-50	CHOKE	1
23	331-0613-00	IC BRACKET	1
24	313-1616-00	HEAT SINK	1
25	714-3010-80	MACHINE SCREW	3
26	051-2009-00	POWER IC	2
27	092-9000-01	ANT RECEPTACLE	1
28	331-0643-00	EARTH PLATE	1
29	880-1756B	TUNER PACK	1
30	345-3436-64	CAP(AMBER)	2
	345-3436-13	CAP(GREEN)	2
31	335-5311-00	LCD HOLDER	1
32	347-5370-00	FILM	1
33	347-5507-00	FILM(ARX2371R)	1
	347-5369-00	FILM(ARX1371R)	1
34	379-1071-41	LCD	1
35	331-2001-00	LCD COVER	1

■ELECTRICAL PARTS LIST

Main PWB section of ARX2371R

Note) Several different parts of the same reference number are alternative parts. One of those parts is used in the set.

REF No.	PART No.	DESCRIPTION
C 1	176-2201-00	22pF CH
C 2	176-2201-00	22pF CH
C 3	176-1011-00	100pF CH
C 4	176-1011-00	100pF CH
C 5	182-4763-33	16V47 μF
C 6	178-1032-05	0.01 μF
C 7	178-1045-06	0.1 μF
C 8	177-1022-05	1000pF
C 102	176-4701-00	47pF CH
C 103	176-1801-00	18pF CH
C 104	180-1053-63	50V1 μF
C 105	176-1011-00	100pF CH
C 106	177-3332-05	0.033 μF
C 107	177-3332-05	0.033 μF
C 108	178-6822-05	6800pF
C 109	178-1022-05	1000pF
C 110	178-8222-05	8200pF
C 111	184-1073-22	10V100 μF
C 112	178-1222-05	1200pF
C 113	178-1032-05	0.01 μF
C 114	178-1032-05	0.01 μF
C 116	178-1522-05	1500pF
C 117	178-1045-06	0.1 μF
C 118	178-1022-05	1000pF
C 119	178-1022-05	1000pF
C 201	177-2732-05	0.027 μF
C 202	178-1522-05	1500pF
C 203	178-1522-05	1500pF
C 204	181-4743-62	50V0.47 μF
C 205	181-4743-62	50V0.47 μF
C 206	042-9003-00	10V100 μF
C 207	042-9003-00	10V100 μF
C 208	177-2732-05	0.027 μF
C 209	180-4763-43	25V47 μF
C 210	178-1032-05	0.01 μF
C 211	177-1045-06	0.1 μF
C 301	176-3311-00	330pF
C 302	182-2253-63	50V2.2 μF
C 303	182-4763-33	16V47 μF
C 304	176-5611-00	560pF
C 305	176-8201-00	82pF CH
C 306	176-4701-00	47pF CH
C 307	178-1045-06	0.1 μF
C 309	178-1032-05	0.01 μF
C 310	178-2232-05	0.022 μF
C 312	178-2232-05	0.022 μF
C 313	176-3311-00	330pF
C 314	176-5611-00	560pF
C 315	176-5611-00	560pF
C 316	176-3311-00	330pF
C 401	182-1063-33	16V10 μF
C 402	171-1032-06	0.01 μF
C 403	180-4763-43	25V47 μF
C 404	180-1063-63	50V10 μF
C 405	171-1023-06	1000pF
C 406	180-4763-43	25V47 μF
C 410	178-1032-05	0.01 μF
C 501	178-1045-06	0.1 μF
C 502	175-5601-00	56pF
C 503	177-1045-06	0.1 μF
C 504	178-1045-06	0.1 μF
C 505	178-1032-05	0.01 μF
C 601	180-2253-63	50V2.2 μF
C 602	180-2253-63	50V2.2 μF
C 603	180-1063-63	50V10 μF
C 604	180-1063-63	50V10 μF
C 605	180-2253-63	50V2.2 μF
C 606	180-2253-63	50V2.2 μF
C 607	174-5600-13	56pF
C 608	174-5600-13	56pF
C 609	176-1511-00	150pF CH
C 610	180-4753-63	50V4.7 μF
C 611	180-4753-63	50V4.7 μF
C 612	176-1511-00	150pF CH
C 613	178-8232-05	0.082 μF
C 614	180-2253-63	50V2.2 μF
C 615	178-8232-05	0.082 μF
C 616	180-2253-63	50V2.2 μF
C 617	180-2263-33	16V22 μF
C 618	180-2263-33	16V22 μF
C 619	178-5622-05	5600pF
C 620	178-5632-05	0.056 μF
C 621	178-5622-05	5600pF
C 622	178-5622-05	5600pF
C 623	178-5632-05	0.056 μF
C 624	178-5622-05	5600pF
C 625	180-1063-63	50V10 μF
C 626	180-1063-63	50V10 μF
C 627	180-4763-43	25V47 μF
C 628	184-1073-22	10V100 μF
C 629	178-4732-05	0.047 μF
C 702	181-4743-62	50V0.47 μF
C 703	181-4743-62	50V0.47 μF
C 704	181-4743-62	50V0.47 μF
C 705	181-4743-62	50V0.47 μF
C 707	178-1032-05	0.01 μF
C 708	173-1042-10	0.1 μF
C 709	042-0447-00	16V2200 μF
C 710	178-1032-05	0.01 μF
C 711	178-2232-05	0.022 μF
C 801	178-4732-05	0.047 μF
C 802	178-4732-05	0.047 μF
C 803	178-1822-05	1800pF
C 805	178-1022-05	1000pF
C 901	178-4732-05	0.047 μF
CN 102	076-9000-10	
CN 103	076-9000-08	
CN 104	076-9000-04	
CN 107	076-9000-03	
CN 108	074-1022-01	
D 101	001-0330-00	1SS119
D 102	001-0330-00	1SS119
D 103	001-0376-69	MTZ18JB
D 104	001-0376-69	MTZ18JB
D 201	001-0376-41	MTZJ7.5B
D 301	001-0330-00	1SS119
D 302	001-0330-00	1SS119
D 401	001-0376-33	MTZJ5.6C
D 402	001-0330-00	1SS119
D 403	001-0330-00	1SS119
D 404	001-0376-46	MTZJ9.1A
D 405	001-0376-47	MTZJ9.1B
D 406	001-0376-36	MTZJ6.2C
D 407	001-0188-01	1S1885A
D 408	001-0376-45	MTZJ8.2C
D 409	001-0376-29	MTZJ5.1B
D 410	001-0330-00	1SS119
D 411	001-0330-00	1SS119
D 412	001-0330-00	1SS119
D 414	001-0330-00	1SS119
D 415	001-0330-00	1SS119
D 501	001-0330-00	1SS119
D 601	001-0376-23	MTZ4.3JB
D 901	001-0330-00	1SS119
D 902	001-0330-00	1SS119
IC 1	051-6201-00	LC72146M
IC 201	051-0272-00	LA3161
IC 301	051-1819-00	SAA6579T
IC 302	051-0350-55	NJM4558M
IC 501	052-1908-00	μPD178004GC-513-3B9
IC 601	051-5008-00	M62419FP
IC 701	051-2009-00	TDA8561Q
IC 702	051-2009-00	TDA8561Q
IC 801	051-6013-00	LC75854W
IC 901	051-0160-01	HD74LS07P
L 1	010-9000-02	220 μH
L 101	010-9000-05	5.6 μH
L 102	010-9009-01	
L 401	009-9006-50	
L 402	010-9000-02	220 μH
PL 1	017-9001-01	8V68mA
PL 2	017-9001-01	8V68mA
Q 102	108-0669-00	2SK669
Q 201	101-1240-00	2SB1240
Q 202	125-2003-02	RN1202
Q 204	125-0003-02	RN2202
Q 205	125-2003-02	RN1202
Q 301	125-2003-02	RN1202
Q 302	103-1450-00	2SD1450
Q 303	125-0003-02	RN2202
Q 401	101-1237-00	2SB1237
Q 402	102-1846-50	2SC1846R,S
Q 403	125-0003-02	RN2202
Q 404	103-1858-00	2SD1858
Q 405	103-1858-00	2SD1858
Q 406	103-1858-00	2SD1858
Q 407	103-1858-00	2SD1858
Q 408	102-2458-51	2SC2458GR,BL
Q 409	125-2003-02	RN1202
Q 410	101-1243-00	2SB1243
Q 411	100-1048-00	2SA1048
Q 412	125-2003-02	RN1202
Q 413	125-2003-02	RN1202
Q 414	101-1237-00	2SB1237
Q 415	125-2003-02	RN1202
Q 416	125-2003-02	RN1202
Q 417	125-0003-02	RN2202
Q 418	125-2003-02	RN1202
Q 501	125-0003-02	RN2202
Q 502	102-2458-51	2SC2458GR,BL
R 1	117-1021-10	1/10W 1kΩ
R 2	117-1021-10	1/10W 1kΩ
R 3	117-1021-10	1/10W 1kΩ
R 4	116-2231-10	1/8W 22kΩ
R 5	116-1031-10	1/8W 10kΩ
R 6	117-1031-10	1/10W 10kΩ
R 7	117-1031-10	1/10W 10kΩ
R 103	117-1831-10	1/10W 18kΩ
R 104	117-1021-10	1/10W 1kΩ
R 105	117-1231-10	1/10W 12kΩ
R 107	117-1231-10	1/10W 12kΩ
R 108	116-1031-10	1/8W 10kΩ
R 109	116-6811-10	1/8W 680Ω
R 110	117-5631-10	1/10W 56kΩ
R 111	117-1021-10	1/10W 1kΩ
R 112	117-2711-10	1/10W 270Ω
R 113	111-5631-91	1/4WS 56kΩ
R 119	116-6811-10	1/8W 680Ω
R 201	117-1031-10	1/10W 10kΩ
R 202	117-1021-10	1/10W 1kΩ
R 203	111-4721-91	1/4WS 4.7kΩ
R 204	111-1241-91	1/4WS 120kΩ
R 205	117-5631-10	1/10W 56kΩ
R 206	117-5631-10	1/10W 56kΩ
R 207	117-8201-10	1/10W 82Ω
R 208	117-8201-10	1/10W 82Ω
R 209	111-4721-91	1/4WS 4.7kΩ
R 210	111-1241-91	1/4WS 120kΩ
R 211	111-1011-91	1/4WS 100Ω
R 301	117-3331-10	1/10W 33kΩ
R 302	117-2231-10	1/10W 22kΩ
R 303	117-1231-10	1/10W 12kΩ

REF No.	PART No.	DESCRIPTION
R 304	117-1031-10	1/10W 10kΩ
R 305	117-1041-10	1/10W 100kΩ
R 306	117-1021-10	1/10W 1kΩ
R 307	117-3331-10	1/10W 33kΩ
R 308	117-2221-10	1/10W 2.2kΩ
R 309	116-1031-10	1/8W 10kΩ
R 310	117-3321-10	1/10W 3.3kΩ
R 312	117-1031-10	1/10W 10kΩ
R 313	117-2211-10	1/10W 220Ω
R 403	111-1091-91	1/4WS 1Ω
R 404	111-1091-91	1/4WS 1Ω
R 405	111-1091-91	1/4WS 1Ω
R 406	111-1091-91	1/4WS 1Ω
R 407	111-4711-81	1/2WS 470Ω
R 408	117-1041-10	1/10W 100kΩ
R 409	117-1041-10	1/10W 100kΩ
R 410	116-3321-10	1/8W 3.3kΩ
R 411	111-1031-91	1/4WS 10kΩ
R 412	111-5611-81	1/2WS 560Ω
R 413	117-1031-10	1/10W 10kΩ
R 414	111-1591-91	1/4WS 1.5Ω
R 415	111-1591-91	1/4WS 1.5Ω
R 416	111-1591-91	1/4WS 1.5Ω
R 417	111-1591-91	1/4WS 1.5Ω
R 418	111-2221-91	1/4WS 2.2kΩ
R 419	111-1031-91	1/4WS 10kΩ
R 420	111-1221-91	1/4WS 1.2kΩ
R 421	117-4721-10	1/10W 4.7kΩ

REF No.	PART No.	DESCRIPTION
R 422	117-2231-10	1/10W 22kΩ
R 423	111-4711-81	1/2WS 470Ω
R 424	111-4711-81	1/2WS 470Ω
R 425	116-1021-10	1/8W 1kΩ
R 426	117-1531-10	1/10W 15kΩ
R 427	117-2231-10	1/10W 22kΩ
R 428	111-1021-91	1/4WS 1kΩ
R 429	116-1231-10	1/8W 12kΩ
R 430	116-1031-10	1/8W 10kΩ
R 431	117-1031-10	1/10W 10kΩ
R 435	117-1041-10	1/10W 100kΩ
R 501	117-2231-10	1/10W 22kΩ
R 502	117-1031-10	1/10W 10kΩ
R 504	117-5621-10	1/10W 5.6kΩ
R 505	117-1031-10	1/10W 10kΩ
R 507	117-1021-10	1/10W 1kΩ
R 508	117-4721-10	1/10W 4.7kΩ
R 601	117-4731-10	1/10W 47kΩ
R 602	117-4731-10	1/10W 47kΩ
R 603	117-6831-10	1/10W 68kΩ
R 604	117-6831-10	1/10W 68kΩ
R 605	117-6821-10	1/10W 6.8kΩ
R 606	117-6821-10	1/10W 6.8kΩ
R 607	117-5121-10	1/10W 5.1kΩ
R 608	117-2221-10	1/10W 2.2kΩ
R 609	117-2231-10	1/10W 22kΩ
R 610	117-5121-10	1/10W 5.1kΩ
R 611	117-2221-10	1/10W 2.2kΩ

REF No.	PART No.	DESCRIPTION
R 612	117-2231-10	1/10W 22kΩ
R 613	111-3311-91	1/4WS 330Ω
R 614	117-2221-10	1/10W 2.2kΩ
R 615	117-2221-10	1/10W 2.2kΩ
R 701	117-4721-10	1/10W 4.7kΩ
R 702	117-4721-10	1/10W 4.7kΩ
R 703	117-4721-10	1/10W 4.7kΩ
R 704	117-4721-10	1/10W 4.7kΩ
R 801	117-2221-10	1/10W 2.2kΩ
R 802	117-2221-10	1/10W 2.2kΩ
R 803	117-2221-10	1/10W 2.2kΩ
R 804	117-2221-10	1/10W 2.2kΩ
R 805	117-6831-10	1/10W 68kΩ
R 806	117-1031-10	1/10W 10kΩ
R 807	117-3921-10	1/10W 3.9kΩ
R 808	117-1241-10	1/10W 120kΩ
R 901	111-1001-91	1/4WS 10Ω
R 902	117-1021-10	1/10W 1kΩ
R 903	117-1021-10	1/10W 1kΩ
R 904	117-1021-10	1/10W 1kΩ
R 905	116-1021-10	1/8W 1kΩ
R 906	116-1021-10	1/8W 1kΩ
R 907	117-1021-10	1/10W 1kΩ
R 908	117-1021-10	1/10W 1kΩ
X 1	061-9002-50	7.2MHz
X 301	061-9001-50	4.332MHz
X 501	060-1023-00	CST4.5MGW

Main PWB section of ARX1371R

REF No.	PART No.	DESCRIPTION
C 101	176-1801-00	18pF CH
C 102	178-1032-05	0.01 μF
C 103	178-1032-05	0.01 μF
C 104	180-1053-63	50V1 μF
C 105	176-2201-00	22pF CH
C 106	176-1011-00	100pF CH
C 107	177-3332-05	0.033 μF
C 108	177-3332-05	0.033 μF
C 109	178-1522-05	1500pF
C 110	178-6822-05	6800pF
C 112	173-2732-10	0.027 μF
C 113	178-5622-05	5600pF
C 114	184-1073-22	10V100 μF
C 115	177-1022-05	1000pF
C 116	176-4701-00	47pF CH
C 117	177-1022-05	1000pF
C 118	184-2273-22	10V220 μF
C 201	177-2732-05	0.027 μF
C 202	178-1522-05	1500pF
C 203	178-1522-05	1500pF
C 204	181-4743-62	50V0.47 μF
C 205	181-4743-62	50V0.47 μF
C 206	184-1073-22	10V100 μF
C 207	184-1073-22	10V100 μF
C 208	177-2732-05	0.027 μF
C 209	180-4753-53	35V4.7 μF
C 210	180-4763-43	25V47 μF
C 211	173-1042-10	0.1 μF
C 301	178-1032-05	0.01 μF
C 302	178-2232-05	0.022 μF
C 303	178-2232-05	0.022 μF
C 304	178-5612-05	560pF
C 305	178-5612-05	560pF
C 306	178-3312-05	330pF
C 307	178-3312-05	330pF
C 308	182-2253-63	50V2.2 μF
C 309	178-3312-05	330pF
C 310	180-4763-43	25V47 μF
C 311	178-5612-05	560pF

REF No.	PART No.	DESCRIPTION
C 313	177-1032-05	0.01 μF
C 314	178-1045-06	0.1 μF
C 315	176-4701-00	47pF CH
C 316	176-8201-00	82pF CH
C 401	180-2263-33	16V22 μF
C 402	184-1073-22	10V100 μF
C 403	180-1063-63	50V10 μF
C 404	171-1032-06	0.01 μFKY5R
C 405	171-1032-06	0.01 μFKY5R
C 406	171-1023-06	1000pF Y5R
C 407	184-2273-22	10V220 μF
C 408	178-1032-05	0.01 μF
C 409	171-1032-06	0.01 μFKY5R
C 501	178-1045-06	0.1 μF
C 502	176-3301-00	33pF CH
C 503	176-3301-00	33pF CH
C 504	178-1032-05	0.01 μF
C 505	184-2273-22	10V220 μF
C 506	177-1045-06	0.1 μF
C 509	176-1011-00	100pF CH
C 510	178-2212-05	220pF
C 511	175-1012-00	100pF CH
C 512	176-5601-00	56pF CH
C 513	178-1032-05	0.01 μF
C 514	178-1032-05	0.01 μF
C 601	178-4732-05	0.047 μF
C 602	180-2253-63	50V2.2 μF
C 603	180-2253-63	50V2.2 μF
C 604	180-2253-63	50V2.2 μF
C 605	180-2253-63	50V2.2 μF
C 606	184-1073-22	10V100 μF
C 607	175-5602-00	56pF CH
C 608	175-5602-00	56pF CH
C 609	176-1511-00	150pF CH
C 610	180-4753-63	50V4.7 μF
C 611	180-4753-63	50V4.7 μF
C 612	176-1511-00	150pF CH
C 613	178-8232-05	0.082 μF
C 614	180-2253-63	50V2.2 μF

REF No.	PART No.	DESCRIPTION
C 615	178-8232-05	0.082 μF
C 616	180-2253-63	50V2.2 μF
C 617	180-2263-33	16V22 μF
C 618	180-2263-33	16V22 μF
C 619	178-5622-05	5600pF
C 620	178-5632-05	0.056 μF
C 621	178-5622-05	5600pF
C 622	178-5622-05	5600pF
C 623	178-5632-05	0.056 μF
C 624	178-5622-05	5600pF
C 625	180-1063-63	50V10 μF
C 626	180-1063-63	50V10 μF
C 627	180-4763-43	25V47 μF
C 628	177-1045-06	0.1 μF
C 701	178-1022-05	1000pF
C 702	181-4743-62	50V0.47 μF
C 703	181-4743-62	50V0.47 μF
C 704	181-4743-62	50V0.47 μF
C 705	181-4743-62	50V0.47 μF
C 706	178-2232-05	0.022 μF
C 707	178-1022-05	1000pF
C 708	173-1042-10	0.1 μF
C 709	042-0447-00	16V2200 μF
C 711	178-1022-05	1000pF
C 801	178-1022-05	1000pF
C 802	178-4732-05	0.047 μF
C 803	178-4732-05	0.047 μF
C 804	178-1822-05	1800pF
C 805	178-4732-05	0.047 μF
CN 101	074-1115-00	
CN 103	076-9000-08	
CN 104	076-9000-04	
CN 105	076-9000-03	
D 101	001-0376-69	MTZ18JB
D 102	001-0330-00	1SS119
D 103	001-0330-00	1SS119
D 104	001-0376-69	MTZ18JB
D 301	001-0330-00	1SS119
D 302	001-0330-00	1SS119

REF No.	PART No.	DESCRIPTION
D 403	001-0376-33	MTZJ5.6C
D 404	001-0330-00	1SS119
D 405	001-0330-00	1SS119
D 406	001-0376-46	MTZJ9.1A
D 407	001-0376-47	MTZJ9.1B
D 408	001-0376-36	MTZJ6.2C
D 409	001-0330-00	1SS119
D 410	001-0330-00	1SS119
D 411	001-0376-45	MTZJ8.2C
D 412	001-0330-00	1SS119
D 501	001-0330-00	1SS119
D 601	001-0376-23	MTZ4.3JB
D 701	001-0376-29	MTZJ5.1B
D 702	001-0330-00	1SS119
D 704	001-0330-00	1SS119
D 705	001-0188-01	1S1885A
IC 1	051-6013-00	LC75854W
IC 201	051-0272-00	LA3161
IC 301	051-1819-00	SAA6579T
IC 302	051-0350-55	NJM4558M
IC 501	052-1910-00	μPD17708GC-543-3B9
IC 601	051-5008-00	M62419FP
IC 701	051-2009-00	TDA8561Q
IC 702	051-2009-00	TDA8561Q
L 101	010-9000-05	5.6 μH
L 102	010-9009-50	0.15 μH
L 301	010-9000-01	120 μH
L 401	010-9000-01	120 μH
L 402	010-9000-02	220 μH
L 701	009-9006-50	
PL 801	017-9001-01	8V68mA
PL 802	017-9001-01	8V68mA
Q 101	108-0669-00	2SK669
Q 201	101-1240-00	2SB1240
Q 202	125-2003-02	RN1202
Q 301	125-2003-02	RN1202
Q 302	125-0003-02	RN2202
Q 303	125-0003-02	RN2202
Q 304	103-1450-00	2SD1450
Q 401	125-0003-02	RN2202
Q 402	102-2458-00	2SC2458
Q 403	125-0003-02	RN2202
Q 404	103-1858-00	2SD1858
Q 405	103-1858-00	2SD1858
Q 406	103-1858-00	2SD1858
Q 407	103-1858-00	2SD1858
Q 408	102-2458-00	2SC2458
Q 409	101-1243-00	2SB1243
Q 410	125-2003-02	RN1202
Q 411	100-1048-00	2SA1048
Q 412	125-2003-02	RN1202

REF No.	PART No.	DESCRIPTION
Q 413	125-2003-02	RN1202
Q 414	101-1237-00	2SB1237
Q 415	125-2003-02	RN1202
Q 501	125-0003-02	RN2202
Q 502	102-2458-00	2SC2458
Q 701	125-2003-02	RN1202
R 101	111-3311-91	1/4WS 330Ω
R 102	117-5631-10	1/10W 56kΩ
R 103	111-5631-91	1/4WS 56kΩ
R 104	117-1021-10	1/10W 1kΩ
R 105	117-1231-10	1/10W 12kΩ
R 107	117-6821-10	1/10W 6.8kΩ
R 108	111-3311-91	1/4WS 330Ω
R 109	117-1021-10	1/10W 1kΩ
R 110	117-1831-10	1/10W 18kΩ
R 201	111-1031-91	1/4WS 10kΩ
R 202	117-1021-10	1/10W 1kΩ
R 203	111-4721-91	1/4WS 4.7kΩ
R 204	111-1241-91	1/4WS 120kΩ
R 205	117-5631-10	1/10W 56kΩ
R 206	117-5631-10	1/10W 56kΩ
R 207	117-8201-10	1/10W 82Ω
R 208	117-8201-10	1/10W 82Ω
R 209	111-4721-91	1/4WS 4.7kΩ
R 210	111-1241-91	1/4WS 120kΩ
R 211	111-2211-91	1/4WS 220Ω
R 301	117-1041-10	1/10W 100kΩ
R 302	117-1231-10	1/10W 12kΩ
R 303	117-2231-10	1/10W 22kΩ
R 304	117-3321-10	1/10W 3.3kΩ
R 305	117-3331-10	1/10W 33kΩ
R 306	117-1031-10	1/10W 10kΩ
R 307	117-1031-10	1/10W 10kΩ
R 308	117-1031-10	1/10W 10kΩ
R 309	117-3331-10	1/10W 33kΩ
R 310	117-2221-10	1/10W 2.2kΩ
R 311	117-2211-10	1/10W 220Ω
R 312	117-1021-10	1/10W 1kΩ
R 401	117-1531-10	1/10W 15kΩ
R 402	111-1021-91	1/4WS 1kΩ
R 403	111-2791-91	1/4WS 2.7Ω
R 404	111-2791-91	1/4WS 2.7Ω
R 405	117-2231-10	1/10W 22kΩ
R 406	111-1091-91	1/4WS 1Ω
R 407	111-1091-91	1/4WS 1Ω
R 408	111-4711-81	1/2WS 470Ω
R 409	111-4711-81	1/2WS 470Ω
R 410	117-1041-10	1/10W 100kΩ
R 411	117-1041-10	1/10W 100kΩ
R 412	111-5611-81	1/2WS 560Ω
R 413	111-1031-91	1/4WS 10kΩ
R 414	117-1031-10	1/10W 10kΩ

REF No.	PART No.	DESCRIPTION
R 415	117-1031-10	1/10W 10kΩ
R 416	111-1591-91	1/4WS 1.5Ω
R 417	111-1591-91	1/4WS 1.5Ω
R 418	111-1591-91	1/4WS 1.5Ω
R 419	111-1591-91	1/4WS 1.5Ω
R 420	111-2221-91	1/4WS 2.2kΩ
R 421	111-1031-91	1/4WS 10kΩ
R 422	111-2221-91	1/4WS 2.2kΩ
R 423	117-4721-10	1/10W 4.7kΩ
R 424	117-1531-10	1/10W 15kΩ
R 425	111-4711-81	1/2WS 470Ω
R 501	117-2221-10	1/10W 2.2kΩ
R 502	116-1031-10	1/8W 10kΩ
R 503	117-1031-10	1/10W 10kΩ
R 504	117-1031-10	1/10W 10kΩ
R 505	117-4731-10	1/10W 47kΩ
R 506	117-1031-10	1/10W 10kΩ
R 507	117-1031-10	1/10W 10kΩ
R 508	117-1021-10	1/10W 1kΩ
R 509	117-1031-10	1/10W 10kΩ
R 510	117-2231-10	1/10W 22kΩ
R 511	117-1031-10	1/10W 10kΩ
R 512	111-1031-91	1/4WS 10kΩ
R 513	111-1031-91	1/4WS 10kΩ
R 514	117-1041-10	1/10W 100kΩ
R 601	117-4731-10	1/10W 47kΩ
R 602	117-4731-10	1/10W 47kΩ
R 603	117-6831-10	1/10W 68kΩ
R 604	117-6831-10	1/10W 68kΩ
R 605	117-6821-10	1/10W 6.8kΩ
R 606	117-6821-10	1/10W 6.8kΩ
R 607	117-5121-10	1/10W 5.1kΩ
R 608	117-5121-10	1/10W 5.1kΩ
R 609	117-2221-10	1/10W 2.2kΩ
R 610	117-2221-10	1/10W 2.2kΩ
R 611	111-3311-91	1/4WS 330Ω
R 701	117-4721-10	1/10W 4.7kΩ
R 702	117-4721-10	1/10W 4.7kΩ
R 703	117-4721-10	1/10W 4.7kΩ
R 704	117-4721-10	1/10W 4.7kΩ
R 705	111-2231-91	1/4WS 22kΩ
R 706	117-3321-10	1/10W 3.3kΩ
R 801	117-2221-10	1/10W 2.2kΩ
R 802	117-2221-10	1/10W 2.2kΩ
R 803	116-2221-10	1/8W 2.2kΩ
R 804	117-6831-10	1/10W 68kΩ
R 805	117-1031-10	1/10W 10kΩ
R 806	117-3921-10	1/10W 3.9kΩ
R 807	117-1241-10	1/10W 120kΩ
X 301	061-9001-50	4.332MHz
X 501	061-9000-50	4.5MHz

Switch PWB section

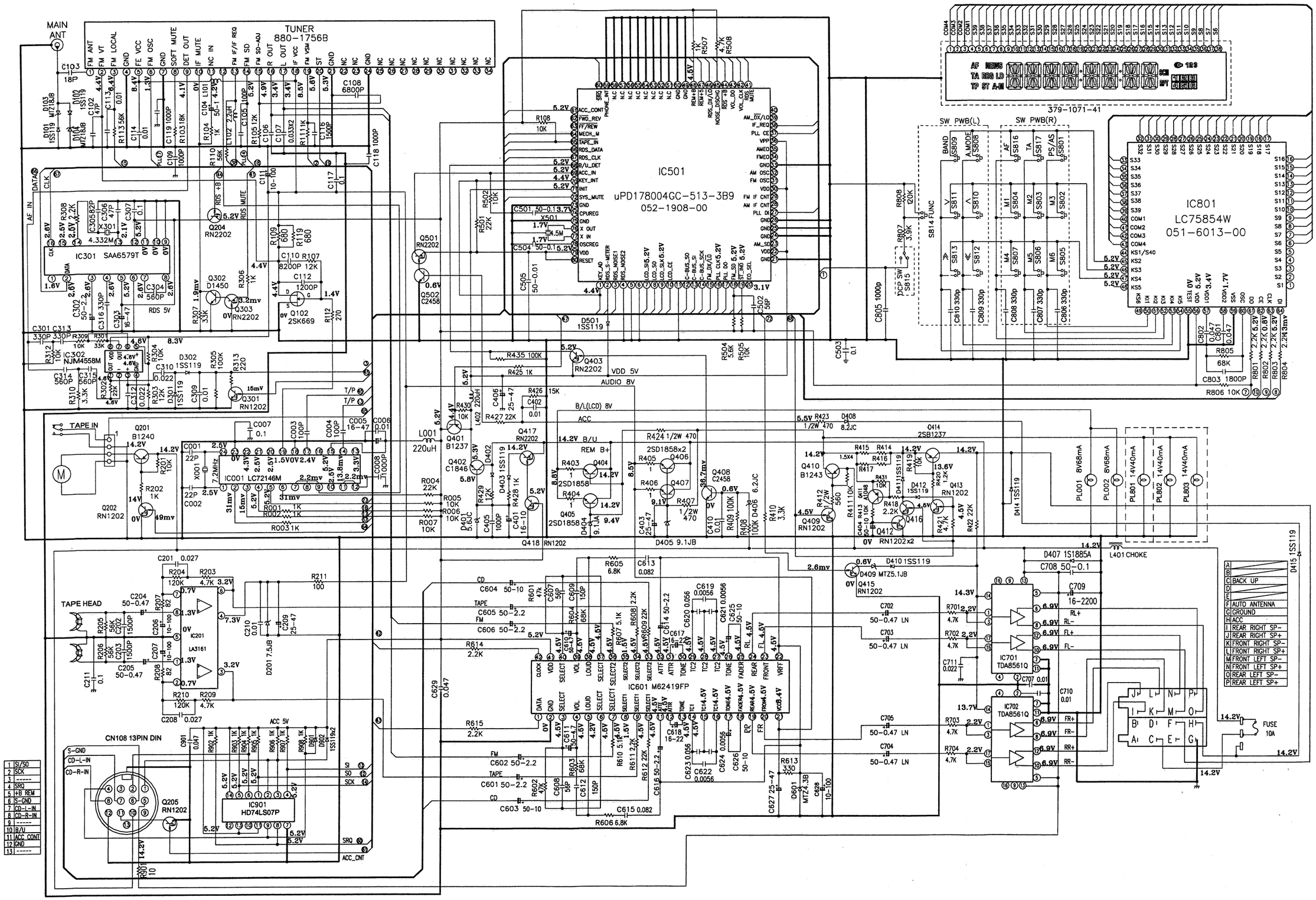
REF No.	PART No.	DESCRIPTION
C 806	176-3311-00	330pF
C 807	176-3311-00	330pF
C 808	176-3311-00	330pF
C 809	176-3311-00	330pF
C 810	176-3311-00	330pF
PL 801	017-0410-00	
PL 802	017-0410-00	
PL 803	017-0410-00	
SW 801	013-6002-50	

REF No.	PART No.	DESCRIPTION
SW 802	013-6002-50	
SW 803	013-6002-50	
SW 804	013-6002-50	
SW 805	013-6002-50	
SW 806	013-6002-50	
SW 807	013-6002-50	
SW 808	013-3812-11	
SW 809	013-3812-11	
SW 810	013-3812-11	

REF No.	PART No.	DESCRIPTION
SW 811	013-3812-11	
SW 812	013-3812-11	
SW 813	013-3812-11	
SW 814	013-3812-11	
SW 815	013-7000-01	
SW 816	013-3812-11	
SW 817	013-3812-11	

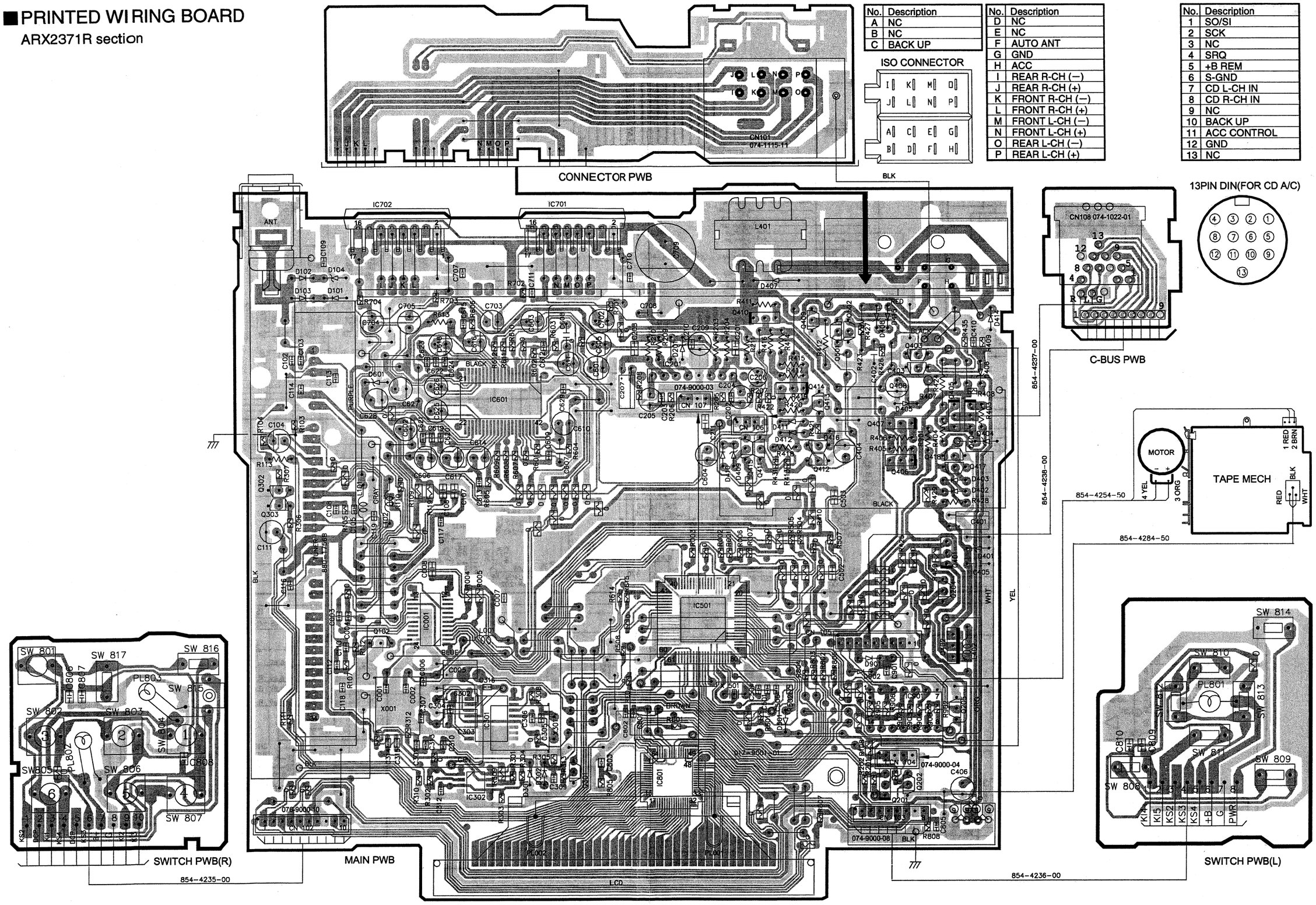
■CIRCUIT DIAGRAM

ARX2371R section



■ PRINTED WI RING BOARD

ARX2371R section



No.	Description
A	NC
B	NC
C	BACK UP

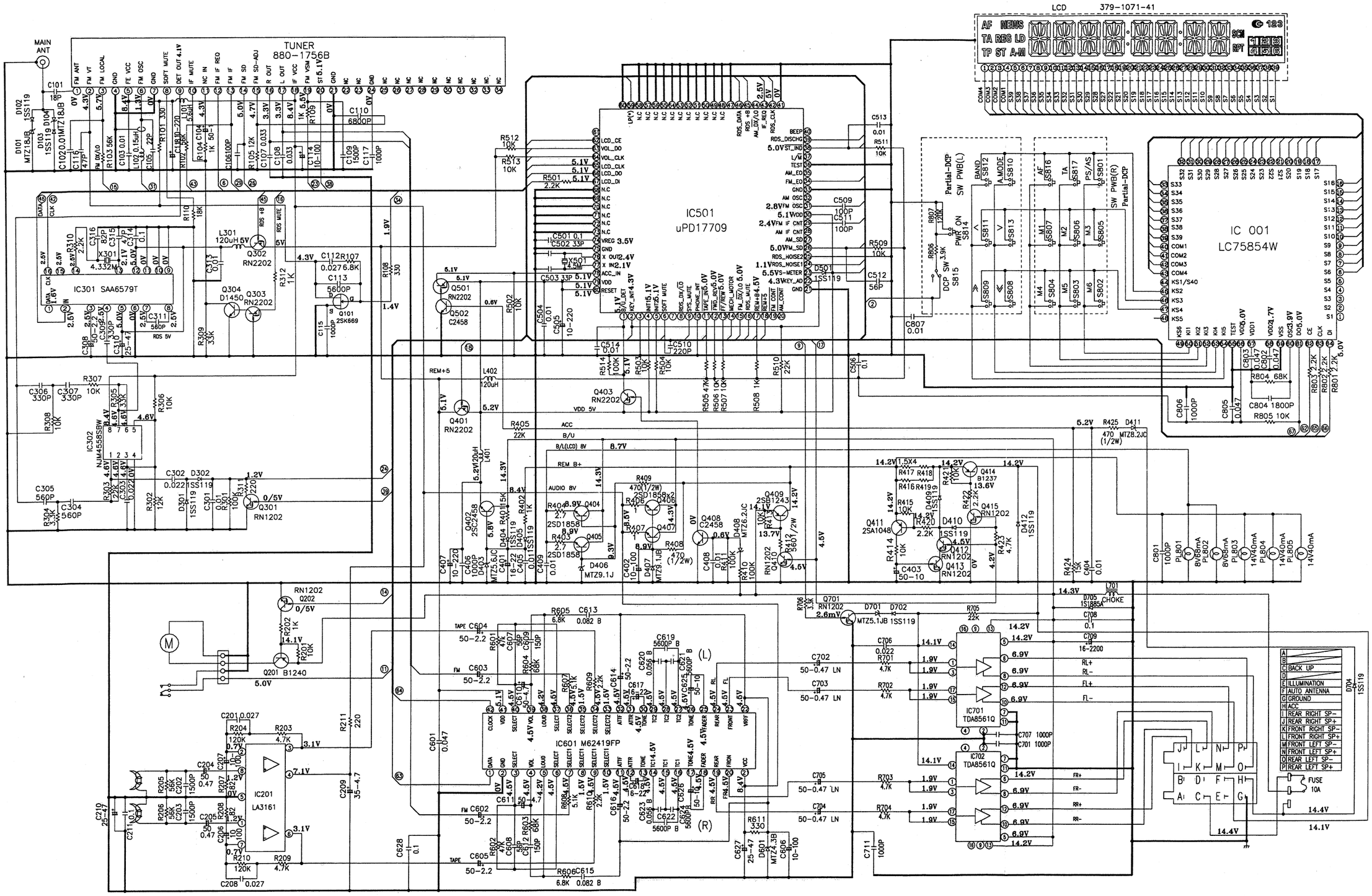
No.	Description
D	NC
E	NC
F	AUTO ANT
G	GND
H	ACC
I	REAR R-CH (−)
J	REAR R-CH (+)
K	FRONT R-CH (−)
L	FRONT R-CH (+)
M	FRONT L-CH (−)
N	FRONT L-CH (+)
O	REAR L-CH (−)
P	REAR L-CH (+)

No.	Description
1	SO/SI
2	SCK
3	NC
4	SRQ
5	+B REM
6	S-GND
7	CD L-CH IN
8	CD R-CH IN
9	NC
10	BACK UP
11	ACC CONTROL
12	GND
13	NC

IC	702	1	302 301 601	701	801	501	901
Q	302 303	102	301	410 411 415	409 501 414 416 413 412	502 407 408 406 201	403 202 418 402 405 404 401 417 204 205

■CIRCUIT DIAGRAM

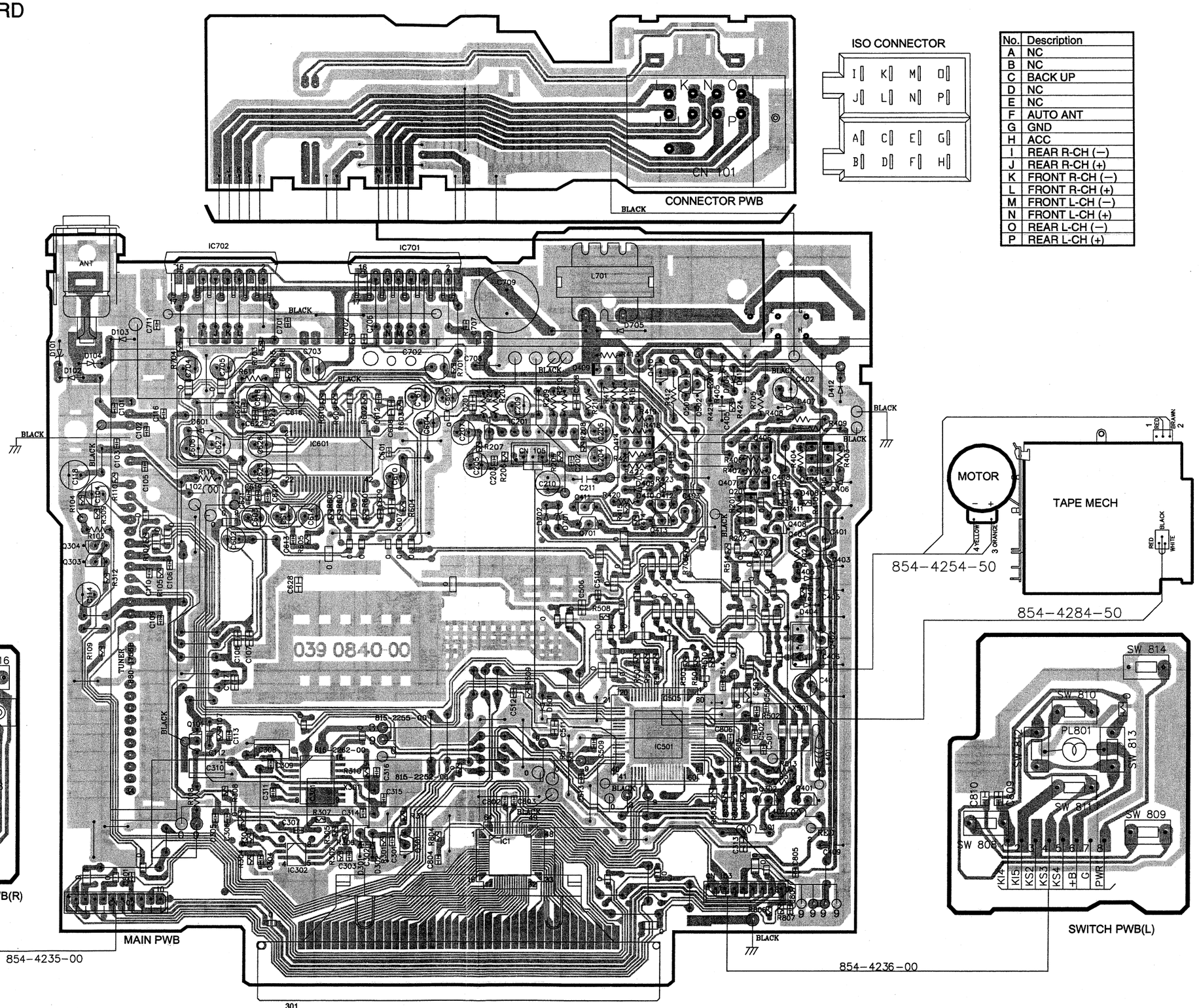
ARX1371R section



ARX2371R

■PRINTED WIRING BOARD

ARX1371R section



No.	Description
A	NC
B	NC
C	BACK UP
D	NC
E	NC
F	AUTO ANT
G	GND
H	ACC
I	REAR R-CH (–)
J	REAR R-CH (+)
K	FRONT R-CH (–)
L	FRONT R-CH (+)
M	FRONT L-CH (–)
N	FRONT L-CH (+)
O	REAR L-CH (–)
P	REAR L-CH (+)

| IC | | |